

SEQUENCE LISTING

<110> Sullenger, Bruce A.

Rusconi, Christopher P.

<120> RNA APTAMERS AND METHODS FOR IDENTIFYING THE SAME

<130> 180/124/2

<150> 60/235,654

<151> 2000-09-26

<160> 227

<170> PatentIn version 3.1

<210> 1

<211> 96

<212> RNA

<213> oligonucleotide

<400> 1
gggagagagg aagagggau ggcgcaggu gggaagcuau acccaacgcc ccagccccag 60
agcauaaccc agaggucgau aguacuggau cccccc 96

<210> 2

<211> 96

<212> RNA

<213> oligonucleotide

<400> 2
gggagagagg aagagggau ggcuaauuac acgcugguga ucccaucuca auugaaacaa 60
cacauaaccc agaggucgau aguacuggau cccccc 96

<210> 3

<211> 96

<212> RNA

<213> oligonucleotide

<400> 3

gggagagagg aagagggaug gggacuauac ggcguaaugc ugccucccca uuccggaacg 60

cucauaaccc agaggucgau aguacuggau cccccc 96

<210> 4

<211> 95

<212> RNA

<213> oligonucleotide

<400> 4

gggagagagg aagagggaug ggcacuauac gcaucuugcu gccugcccg c gagucaaau 60

gcuaaacc aaggucgaa guacuggauc ccccc 95

<210> 5

<211> 96

<212> RNA

<213> oligonucleotide

<400> 5

gggagagagg aagagggaug ggccuaccag uucguggcua gcgugacgua ccaccaggg 60

accuaaccc agaggucgau aguacuggau cccccc 96

<210> 6

<211> 96

<212> RNA

<213> oligonucleotide

<400> 6

gggagagagg aagagggaug ggcgaaacc aacauaggua ucccauucu cauaccuac 60

aacuaaccc agaggucgau aguacuggau cccccc 96

```
<400> 7
gggagagagg aagagggau gggccaccua cuauaccggu caucgugcau agguvcgvc 60
cacauaacc agaggucgau aguacuggau ccccc 96
```

```
<400>      8
gggagagagg aagagggauG ggucucacac ccgaagaugg ccaaagaggg agaugaguuu      60
ccauaaccCa gagguCgaua guacuggauc ccccc                                     95
```

```
<400> 9
gggagagagg aagagggau ggaauuuu cggaucugg acuccaccu gccugcccca 60
gacauaacc agaggucgau aguacuggau cccccc 96
```

```
<400> 10
gggagagagg aagagggau ggcgauauac acauugguga ucccaccac augaaaccac 60
agcauaaccc agaggucgau aguacuggau ccccc 96
```

<210> 11
<211> 96
<212> RNA
<213> oligonucleotide

<220>
<221> misc_feature
<222> (54)..(56)
<223> n=g, c, u or a

<400> 11
gggagagagg aagaggggaug ggcucaucac aggcgaagug aacaacacua ccgncnaguu 60
accauaaccg agaggucgau aguacuggau cccccc 96

<210> 12
<211> 95
<212> RNA
<213> oligonucleotide

<400> 12
gggagagagg aagaggggaug gggacuauac gugaacgacu gcauccacuu ccccgccaug 60
gcauaaccga gagguccgaa guacuggauc ccccc 95

<210> 13
<211> 96
<212> RNA
<213> oligonucleotide

<400> 13
gggagagagg aagaggggaug ggccauacgu ggacgacugc acccgacccu ucagcccagg 60
uccauaaccg agaggucgau aguacuggau cccccc 96

<210> 14
<211> 96
<212> RNA

<213> oligonucleotide

<400> 14
gggagagagg aagaggggaug ggaccgauacg cacauugcug aaucuccuc aauagcaccu 60
accgauaacc agaggucgau aguacuggau ccccc 96

<210> 15

<211> 96

<212> RNA

<213> oligonucleotide

<220>

<221> misc_feature

<222> (54)..(54)

<223> n=c or u

<400> 15
gggagagagg aagaggggaug ggccgauaacc acuuugguga acccaccag cucnugugau 60
ugcauaacc agaggucgau aguacuggau ccccc 96

<210> 16

<211> 96

<212> RNA

<213> oligonucleotide

<400> 16
gggagagagg aagaggggaug ggaccgauaac gacuacucgu gaauccacc aucagcgac 60
aacauaacc agaggucgau aguacuggau ccccc 96

<210> 17

<211> 96

<212> RNA

<213> oligonucleotide

<400> 17
gggagagagg aagaggggaug gggacuauac cggcaaucgu gcaucccug gaccuaaca 60

uacauaacc agaggucgau aguacuggau cccccc 96

<210> 18
<211> 96
<212> RNA
<213> oligonucleotide

<400> 18
gggagagagg aagagggau ggaacaccau uaaugcucgg ccagguaacc cggcgcaua 60
cucauaacc agaggucgau aguacuggau cccccc 96

<210> 19
<211> 94
<212> RNA
<213> oligonucleotide

<400> 19
gggagagagg aagagggau gggaccagua cucuaacggg ugaaucccg aucucgaca 60
uacauaacc agaggucgau aguacuggau cccc 94

<210> 20
<211> 95
<212> RNA
<213> oligonucleotide

<400> 20
gggagagagg aagagggau ggugauaacc acucugguga acccucccg acuugcucg 60
acauaaccga gaggucgau guacuggauc cccc 95

<210> 21
<211> 96
<212> RNA
<213> oligonucleotide

<400> 21
gggagagagg aagagggau gguaauacu guaugguga cccacccaaa cuccauggc 60
uacauaacc agaggucgau aguacuggau cccccc 96

<210> 22

<211> 95

<212> RNA

<213> oligonucleotide

<400> 22

gggagagagg aagagggaug ggcgccauac gcacauugcu gcaucgccuu cccguaagaa 60

ccaauaaccca gaggucgaua guacuggauc ccccc 95

<210> 23

<211> 96

<212> RNA

<213> oligonucleotide

<400> 23

gggagagagg aagagggaug ggaaaauagc cccagcgaga uauuacuugg cccccguacc 60

accuaaaccc agaggucgau aguacuggau ccccc 96

<210> 24

<211> 97

<212> RNA

<213> oligonucleotide

<400> 24

gggagagagg aagagggaug ggccagaagg aacuaaacac cugaaccccc caucgcgaga 60

gaccuaaacc cagaggucga uaguacugga ucccccc 97

<210> 25

<211> 92

<212> RNA

<213> oligonucleotide

<220>

<221> misc_feature

<222> (46)..(46)

<223> n=c or a

<400> 25
gggagagagg aagaggggaug ggaugucacu uggccccucg cgcacncgcc agcgagccca 60
uaaccagag gucgauagua cuggaucccc cc 92

<210> 26

<211> 97

<212> RNA

<213> oligonucleotide

<400> 26
gggagagagg aagaggggaug ggacacgccc agcgagcuca aacuuggccc ccgugcauca 60
ccccauaacc cagaggucga uaguacugga ucccccc 97

<210> 27

<211> 97

<212> RNA

<213> oligonucleotide

<400> 27
gggagagagg aagaggggaug ggaagugcca cagcgagcac augacuuggc cccgcauugc 60
acccauaacc cagaggucga uaguacugga ucccccc 97

<210> 28

<211> 95

<212> RNA

<213> oligonucleotide

<400> 28
gggagagagg aagaggggaug ggaaacuaau gcccuagcga gcuaaccggg acuggccccg 60
ccauaaccga gaggucgaua guacuggauc ccccc 95

<210> 29

<211> 97

<213> oligonucleotide

<210> 30

<211> 95

<212> RNA

<213> oligonucleotide

```
<400> 30
gggagagagg aagagggauG ggcgacccca cuggcggaaa ccgacaaucg cucccccacga 60
ccauaaccga gagguGgaug guacuggauc ccccc 95
```

<210> 31

<211> 99

<212> RNA

<213> oligonucleotide

```
<400> 31
gggagagagg aagagggau ggcagcccag cgagggacac uuaaccccu guccccauc 60
caaaccuaaa cccagagguc gauaguacug gauccccc 99
```

<210> 32

<211> 97

<212> RNA

<213> oligonucleotide

```
<400> 32
gggagagagg aagagggaug ggccagaagu caccgcgacg guacugaacc cccacccaa 60
acccauaacc cagaggucga uaguacugga ucccccc 97
```

<210> 33

<211> 100

<212> RNA

<213> oligonucleotide

<400> 33

gggagagagg aagaggggaug ggccagaagu gcucacuaca acgcuuugac ccccccaucc 60

acaucaccaua acccagaggu cgauaguacu ggaucccccc 100

<210> 34

<211> 97

<212> RNA

<213> oligonucleotide

<400> 34

gggagagagg aagaggggaug ggccagcaac cgaagggcgg aauaccccc guccaccacu 60

acccauaacc cagaggucga uaguacugga ucccccc 97

<210> 35

<211> 97

<212> RNA

<213> oligonucleotide

<400> 35

gggagagagg aagaggggaug ggacgcgacu caggcagcac uugacuuggc ccuugcgau 60

caccuaaacc cagaggucga uaguacugga ucccccc 97

<210> 36

<211> 97

<212> RNA

<213> oligonucleotide

<400> 36

gggagagagg aagaggggaug ggccagcaac gcuaacacgg aauaccccc accccaacgu 60

gcccuaaacc cagaggucga uaguacugga ucccccc 97

<210> 37

<211> 97

<212> RNA

<213> oligonucleotide

<400> 37

gggagagagg aagaggggaug ggcucucuaa ccgaaauaca acuuuaaauc auuuaucau 60
uaccuaaacc cagaggucga uaguacugga ucccccc 97

<210> 38

<211> 97

<212> RNA

<213> oligonucleotide

<400> 38

gggagagagg aagaggggaug ggauacgccg augcaagcau guccacacac cgcaugccgu 60
accuaaacc cagaggucga uaguacugga ucccccc 97

<210> 39

<211> 96

<212> RNA

<213> oligonucleotide

<400> 39

gggagagagg aagaggggaug gguacagagg aguacaagua gcaugguccc cucguguaaa 60
aacuaaacc agaggucgau aguacuggau ccccc 96

<210> 40

<211> 96

<212> RNA

<213> oligonucleotide

<400> 40

gggagagagg aagaggggaug ggugcaaaag agcuucuugu aguaugaucc cucaaccgca 60
agcauaaacc agaggucgau aguacuggau ccccc 96

<210> 41

<211> 96

<212> RNA

<213> oligonucleotide

<400> 41
gggagagagg aagaggggaug gguacagagg aguacaagua gcaugauccc cucguguaaa 60
aacauaacc agaggucgau aguacuggau cccccc 96

<210> 42

<211> 96

<212> RNA

<213> oligonucleotide

<400> 42
gggagagagg aagaggggaug ggagccuag uaacagaugc agaucccuag ucgucccaac 60
accauaacc agaggucgau aguacuggau cccccc 96

<210> 43

<211> 96

<212> RNA

<213> oligonucleotide

<400> 43
gggagagagg aagaggggaug ggcacaacga acaccgauc ccuugacaga aagagcacgc 60
cucauaacc agaggucgau aguacuggau cccccc 96

<210> 44

<211> 96

<212> RNA

<213> oligonucleotide

<400> 44
gggagagagg aagaggggaug gguacagagg aguacaagua acaugauccc cucguguaaa 60
aacauaacc agaggucgau aguacuggau cccccc 96

<210> 45

<211> 96

<213> oligonucleotide

<210> 46

<211> 96

<212> RNA

<213> oligonucleotide

<210> 47

<211> 96

<212> RNA

<213> oligonucleotide

<210> 48

<211> 22

<212> RNA

<213> oligonucleotide

```
<400> 48
gggagagagg aagagggau g 22
```

<210> 49

<211> 34

<212> RNA

<213> oligonucleotide

<400> 49

cauaaccag agguCGauag uacuggauc cccc

34

<210> 50

<211> 40

<212> RNA

<213> oligonucleotide

<400> 50

ugCGaCaAAA gcugaaguac uuacgcacaa cccguagaau

40

<210> 51

<211> 37

<212> RNA

<213> oligonucleotide

<400> 51

aacaacugaa gaacuaccu ucuuacugac gaauuaa

37

<210> 52

<211> 39

<212> RNA

<213> oligonucleotide

<400> 52

aaacaaagcu gaaguacua uuccaucacc acgCCgga

39

<210> 53

<211> 40

<212> RNA

<213> oligonucleotide

<400> 53

uaauuggcuu cucagugccg cagagacagc aacaauuagu

40

<210> 54

<211> 40

<212> RNA

<213> oligonucleotide

<400> 54

acaaagcugg agaacuacc guucccuc cagagaucaa

40

<210> 55

<211> 40

<212> RNA

<213> oligonucleotide

<400> 55

gaacaaagcu gaaguacuua cccaagauca ucccgaacga

40

<210> 56

<211> 40

<212> RNA

<213> oligonucleotide

<400> 56

aacaaagcug gagaacuua cgucccuc ccagcgguaa

40

<210> 57

<211> 25

<212> RNA

<213> oligonucleotide

<400> 57

gggaacaaag cugaaguacu uaccc

25

<210> 58

<211> 25

<212> RNA

<213> oligonucleotide

25

<211> 25

<213> oligonucleotide

25

<211> 25

<213> oligonucleotide

25

<211> 25

<213> oligonucleotide

25

<211> 21

<213> oligonucleotide

21

<210> 63

<211> 28

<212> RNA

<213> oligonucleotide

<400> 63

caaaccaga ggcaagacg gaccccc

28

<210> 64

<211> 33

<212> RNA

<213> oligonucleotide

<400> 64

aaggaacacg aaggccccg agcaccaaca cag

33

<210> 65

<211> 35

<212> RNA

<213> oligonucleotide

<400> 65

gcaccgccag cggcgacgga cccgccaca ggccc

35

<210> 66

<211> 33

<212> RNA

<213> oligonucleotide

<400> 66

aaagcacacg aagccccagc aaaacccac agg

33

<210> 67

<211> 31

<212> RNA

<213> oligonucleotide

<400> 67

31

<210> 68

<211> 44

<212> RNA

<213> oligonucleotide

<400> 68

caaaccacag acccaacgca ggagcaccca cccacacggg acag

44

<210> 69

<211> 34

<212> RNA

<213> oligonucleotide

<400> 69

accccgccga agccgccgag gacaccacac ccgc

34

<210> 70

<211> 34

<212> RNA

<213> oligonucleotide

<400> 70

auggggacua uaccgcguaa ugcugccucc ccau

34

<210> 71

<211> 29

<212> RNA

<213> oligonucleotide

<400> 71

ggggacuaua ccggcaaucg ugcaucccc

29

<210> 72

<211> 6

<212> PRT

<213> peptide ligand

<400> 72

Ser Phe Leu Leu Arg Asn
1 5

<210> 73

<211> 92

<212> DNA

<213> oligonucleotide

<400> 73
gggagagagg aagagggau ggaaaauagc cccagcgaga uaauacuugg ccccgcuacu 60
accuaaccc agaggucgau aguacuggau cc 92

<210> 74

<211> 40

<212> RNA

<213> oligonucleotide

<400> 74
aaaguaccga cuaggucca cuguuuaagc auccccaac 40

<210> 75

<211> 41

<212> RNA

<213> oligonucleotide

<400> 75
aagcucauc caagcgacga cagcucguc ccgaaaagaa u 41

<210> 76

<211> 41

<212> RNA

<213> oligonucleotide

<400> 76

41

<210> 77

<211> 40

<212> RNA

<213> oligonucleotide

<400> 77

acaacgccac cuuccgcgcg acgccgcgcc gacgauaacu

40

<210> 78

<211> 41

<212> RNA

<213> oligonucleotide

<400> 78

acaacgccac cuuccgcgcg acgccgcgcc gacguauaac u

41

<210> 79

<211> 40

<212> RNA

<213> oligonucleotide

<400> 79

acgaaaauau cuccgucaag gaccuccugc cccaaacacu

40

<210> 80

<211> 40

<212> RNA

<213> oligonucleotide

<400> 80

agacgacaca uccaagcgug agagaucacc cgacaagaau

40

<210> 81

<211> 42

<212> RNA

<213> oligonucleotide

<400> 81
auuuuuucac acauucuuaa uuuucacuua cccgucccg uc 42

<210> 82

<211> 40

<212> RNA

<213> oligonucleotide

<400> 82
caaagcacc guccaagcga cagacaugc ccgcagcccu 40

<210> 83

<211> 40

<212> RNA

<213> oligonucleotide

<400> 83
caccauuuau ucuucauuu ucuucgcca guuccuccaa 40

<210> 84

<211> 39

<212> RNA

<213> oligonucleotide

<400> 84
cauaagccgc cucagcugac aaagcccucc gcuuaggcc 39

<210> 85

<211> 40

<212> RNA

<213> oligonucleotide

<400> 85
ccaaagugcu uccgcaagu ucgaccauuc gccgcugca 40

<210> 86

<211> 40

<212> RNA

<213> oligonucleotide

<400> 86

ccccuccgcc aacuuggccg ccucaggcac caucaccaac

40

<210> 87

<211> 41

<212> RNA

<213> oligonucleotide

<400> 87

cccgaucucc ccgaggaccu ccacggcccg uccgccaguu u

41

<210> 88

<211> 40

<212> RNA

<213> oligonucleotide

<400> 88

ccgccucagc aaucuagccc uccgcccgcac ccuuccgcug

40

<210> 89

<211> 40

<212> RNA

<213> oligonucleotide

<400> 89

ccgccucagc gagaucuucg ccuuccgccc aagccucaac

40

<210> 90

<211> 40

<212> RNA

<213> oligonucleotide

<400> 90
ccgccucagg acgacaccgg uccccuccgc ccguccgcgc 40

<210> 91

<211> 40

<212> RNA

<213> oligonucleotide

<400> 91
ccgccucagg caucagcccc uccgcccgcc cacuucauca 40

<210> 92

<211> 40

<212> RNA

<213> oligonucleotide

<400> 92
ccgccucagu uacuugauaa cccuccgcc gcccgagcu 40

<210> 93

<211> 40

<212> RNA

<213> oligonucleotide

<400> 93
cuuuacauau uacuuaauac auuuucauaa caccacacgc 40

<210> 94

<211> 40

<212> RNA

<213> oligonucleotide

<400> 94
gacaccaucc aagcgaccaa ccaaggucc gcacauacu 40

<210> 95

<211> 39
<212> RNA
<213> oligonucleotide

<400> 95
gaugcaacuc gaaauggccg ccucgcguca gcguuccgc 39

<210> 96
<211> 39
<212> RNA
<213> oligonucleotide

<400> 96
gcuuauucuua uaucacuuuu ucuucccaau ccuucaagu 39

<210> 97
<211> 40
<212> RNA
<213> oligonucleotide

<400> 97
uaaccaacca agcguccaaa aaccuggacc cgccaagaau 40

<210> 98
<211> 40
<212> RNA
<213> oligonucleotide

<400> 98
uaaccaacca agcguccaaa aaccuggacc cgccaagaau 40

<210> 99
<211> 40
<212> RNA
<213> oligonucleotide

<400> 99

40

<210> 100

<211> 40

<212> RNA

<213> oligonucleotide

<400> 100

ucugacguuc caccguccuc gaaggcgacc agagcguuac

40

<210> 101

<211> 40

<212> RNA

<213> oligonucleotide

<400> 101

ugccgccuca gccacacggc ccuccgcgcc cgccacaagc

40

<210> 102

<211> 22

<212> RNA

<213> oligonucleotide

<400> 102

gggagagagg aagagggau_g gg

22

<210> 103

<211> 18

<212> RNA

<213> oligonucleotide

<400> 103

cauaaccag aggucgau

18

<210> 104

<211> 40

<212> RNA

40

<213> oligonucleotide

40

<213> oligonucleotide

<223> n=g, c, u or a

<223> n=g, c, u or a

40

<213> oligonucleotide

<400> 107

aaaauagccc cagcgagaua auacuuggcc ccgcuauuac

40

<210> 108

<211> 40

<212> RNA

<213> oligonucleotide

<400> 108

aaaauagccc cagcgagaua auacuuggcc ccgcuagcac

40

<210> 109

<211> 40

<212> RNA

<213> oligonucleotide

<400> 109

aaaauagccc cagcgagaua auacuuggcc ccgcuacaac

40

<210> 110

<211> 40

<212> RNA

<213> oligonucleotide

<400> 110

agaauagccc cagcgagauu auacuuggcc ccgccaauac

40

<210> 111

<211> 40

<212> RNA

<213> oligonucleotide

<400> 111

aaaauagccc cagcgagaug auacuuggcc ccgcuauuac

40

<210> 112

<211> 40

<212> RNA

```
<400> 112
agaauacgcc uagcgagaag auacuuggcc cccgugcaac
```

40

<211> 40

<212> RNA

<213> oligonucleotide

```
<400> 113
aaaauagccc cagcgagaua auacuuggcc ccgcuguuac
```

40

<210> 114

<211> 40

<212> RNA

<213> oligonucleotide

```
<400> 114
aaauuugccc cagcgagaua auacuuggcc ccgcaacuac
```

40

<210> 115

<211> 40

<212> RNA

<213> oligonucleotide

```
<400> 115
auaaauagccc cagcgagaua auacuuggcc ccgcuacuaa
```

40

<210> 116

<211> 40

<212> RNA

<213> oligonucleotide

```
<400> 116
agaauagccc cagcgagaua auacuuggcc ccgcuaauac
```

40

<210> 117
<211> 41
<212> RNA
<213> oligonucleotide

<400> 117
aaaauugccc uagcgagauu auacuuggcc ccgcgaaaaa c 41

<210> 118
<211> 40
<212> RNA
<213> oligonucleotide

<400> 118
aaaauagccc cagcgagaua auacuuggcc ccgcgaacac 40

<210> 119
<211> 40
<212> RNA
<213> oligonucleotide

<400> 119
ugcauagccc cagcgagaua auacuuggcc ccgcuacaac 40

<210> 120
<211> 40
<212> RNA
<213> oligonucleotide

<220>
<221> misc_feauure
<222> (1)..(38)
<223> n=g, c, u or a

<400> 120
ngaauagccc nagcgagaua nuacuuggcc ccgcuacnuc 40

20250626 14:26:30

<210> 121

<211> 40

<212> RNA

<213> oligonucleotide

<400> 121

aaaauaacca cagcgagauc auacuuggcc ccguuacuac

40

<210> 122

<211> 40

<212> RNA

<213> oligonucleotide

<400> 122

aaaauagccc uagcgagaua auacuuggcc ccgccacaua

40

<210> 123

<211> 40

<212> RNA

<213> oligonucleotide

<400> 123

cagauagcca cagcgagauc auacuuggcc ccgcuacuac

40

<210> 124

<211> 40

<212> RNA

<213> oligonucleotide

<400> 124

agaauagccc cagcgagaua auccuuggcc ccgcuacugc

40

<210> 125

<211> 40

<212> RNA

<213> oligonucleotide

<220>

<221> misc_feauure

<222> (3)..(35)

<223> n=g, c, u or a

<400> 125

aancuagccc nagcgagaua uuacuuggcc ccgcnacuac

40

<210> 126

<211> 40

<212> RNA

<213> oligonucleotide

<400> 126

aaacuagccu cagcgagaua auacuuggcc ccgcuacuac

40

<210> 127

<211> 40

<212> RNA

<213> oligonucleotide

<400> 127

ccagaagcgc ucacuacaac guugaacccc ccguccacac

40

<210> 128

<211> 40

<212> RNA

<213> oligonucleotide

<400> 128

ccaaaagcgg acugaagacg uguuuccccc aucuccguga

40

<210> 129

<211> 40

<212> RNA

```
<400> 133
ccaaaagcgc auacaccugc guguuucccc cgccaacagu 40
```


<213> oligonucleotide

<223> n=g, c, u or a

42

<213> oligonucleotide

40

<213> oligonucleotide

43

<213> oligonucleotide

39

<213> oligonucleotide

38

<213> oligonucleotide

40

<213> oligonucleotide

<223> n=g, c, u or a

43

<213> oligonucleotide

40

<210> 142

<211> 39

<212> RNA

<213> oligonucleotide

<400> 142

gccgucgccca ggaaucuaac ugcuaucucca ucccgggca

39

<210> 143

<211> 40

<212> RNA

<213> oligonucleotide

<400> 143

ccagaagcua aacacucaua accacgcuga accccccaac

40

<210> 144

<211> 40

<212> RNA

<213> oligonucleotide

<400> 144

ccagaaccaa cugcggugaa ccccccauac cgcgacacau

40

<210> 145

<211> 40

<212> RNA

<213> oligonucleotide

<400> 145

aacuuagccu cagcgagaua acgcuuggcc ccgcuaagac

40

<210> 146

<211> 40

<212> RNA

<213> oligonucleotide

<400> 146
uaaguugccc cagcgagaua guacuuggcc ccgcuacuaa 40

<210> 147

<211> 40

<212> RNA

<213> oligonucleotide

<400> 147
aaaauagccc cagcgagaua auacuuggcc ccgcuacuaa 40

<210> 148

<211> 36

<212> RNA

<213> oligonucleotide

<400> 148
gagagcccca gcgagauaau acuuggcccc gcucuu 36

<210> 149

<211> 22

<212> RNA

<213> oligonucleotide

<400> 149
gggagagagg aagagggaug gg 22

<210> 150

<211> 34

<212> RNA

<213> oligonucleotide

<400> 150
cauaacccag agguccgauag uacuggaucc cccc 34

<210> 151
<211> 40
<212> RNA
<213> oligonucleotide

<400> 151
acucgaacau uuccacuaac caaccuacu aaagcaccgc 40

<210> 152
<211> 40
<212> RNA
<213> oligonucleotide

<400> 152
acucgaacau uuccacuaac caaccuacu aaagcaccgc 40

<210> 153
<211> 39
<212> RNA
<213> oligonucleotide

<400> 153
gaccaccaac acaccacaua cugcuuugua ccaacauuc 39

<210> 154
<211> 40
<212> RNA
<213> oligonucleotide

<400> 154
cccagcgaac acacaacaga acacgaacgg auccgagcaa 40

<210> 155
<211> 39
<212> RNA
<213> oligonucleotide

<400> 155
gucacaaacu accuaucaucc uucgcuugau acaacauuc 39

<210> 156

<211> 40

<212> RNA

<213> oligonucleotide

<400> 156
acaccaagga cccaacgacc cucgcuugac acagucauuc 40

<210> 157

<211> 37

<212> RNA

<213> oligonucleotide

<400> 157
augaacaaca cccaaacuug cuucaaccgc auccaca 37

<210> 158

<211> 40

<212> RNA

<213> oligonucleotide

<400> 158
gaccucacgc acugcuaagc ggcucugaug gaccucuaug 40

<210> 159

<211> 41

<212> RNA

<213> oligonucleotide

<400> 159
ccaccuccga aaaaucacaa ucugcccuug acaccagcua g 41

<210> 160

1.03600 2.00000

<211> 40

<212> RNA

<213> oligonucleotide

<400> 160

ccucauuggc ccugccacgc ucggacaacc guuccgcuca

40

<210> 161

<211> 40

<212> RNA

<213> oligonucleotide

<400> 161

uccagugcag uuccauaacc gcuacucagc gcgugauuag

40

<210> 162

<211> 40

<212> RNA

<213> oligonucleotide

<400> 162

uuucgagcaa ccucccaaca aucuaaccgu aaccuccag

40

<210> 163

<211> 40

<212> RNA

<213> oligonucleotide

<400> 163

caacaucagc acgccugaac cuucgcuugc aacagcauuc

40

<210> 164

<211> 41

<212> RNA

<213> oligonucleotide

<400> 164

ccaccuccga aaaaucacaa ucugcccuug acaccagcua g 41

<210> 165

<211> 40

<212> RNA

<213> oligonucleotide

<400> 165
uuacaccauc gaccaaacia ugcgccguac cacuauacga 40

<210> 166

<211> 15

<212> RNA

<213> oligonucleotide

<400> 166
gggaggacga ugcgg 15

<210> 167

<211> 25

<212> RNA

<213> oligonucleotide

<400> 167
cagacgacuc gcugaggauc cgaga 25

<210> 168

<211> 40

<212> RNA

<213> oligonucleotide

<400> 168
acuagccuca ucagcucaug ugccccuccg ccuggaucac 40

<210> 169

<211> 41

<212> RNA

<400> 169
ugaccaagcc ucacguugaa ccugccagua gaccccgccc a

41

<211> 40

<212> RNA

<213> oligonucleotide

```
<400> 170
uuuaccauca gcucauggcc ccugcccucu caaggaccac
```

40

<210> 171

<211> 40

<212> RNA

<213> oligonucleotide

```
<400> 171
caccagaccg acaucagcuu auggccccuc acccacaccg
```

40

<210> 172

<211> 39

<212> RNA

<213> oligonucleotide

```
<400> 172
ggagcgcaau ucgccucgca aguugaacuc cgcuggcgg
```

39

<210> 173

<211> 40

<212> RNA

<213> oligonucleotide

```
<400> 173
uaagcucuuu ggcuuagccc gacacguuga acuccagagu
```

40

<210> 174

<211> 40

<212> RNA

<213> oligonucleotide

<400> 174

cacgguacca ccaagucaca cguugaacuc caugcagcug

40

<210> 175

<211> 40

<212> RNA

<213> oligonucleotide

<400> 175

ccaccgaucg caucagcuca uggccccucc cgaccgcga

40

<210> 176

<211> 41

<212> RNA

<213> oligonucleotide

<400> 176

ccagacguuc ucgccccgcc gaucaucagc gcuggccua u

41

<210> 177

<211> 40

<212> RNA

<213> oligonucleotide

<400> 177

cacuaccacg ccauaucagc uaauggcccc ucccuacgca

40

<210> 178

<211> 40

<212> RNA

<213> oligonucleotide

<400> 178
cacucagcgc ccugcgaaac guugccgccu cccaacgucu 40

<210> 179

<211> 40

<212> RNA

<213> oligonucleotide

<400> 179
acucaccagu caccaucagc ucaugcgccc ccccccgac 40

<210> 180

<211> 40

<212> RNA

<213> oligonucleotide

<400> 180
cucuuuuugu ccccgcacgu ugaacuccug ucccucuacu 40

<210> 181

<211> 39

<212> RNA

<213> oligonucleotide

<400> 181
ugacgguucu ucucucgccu cuggagcucu cgucucgau 39

<210> 182

<211> 40

<212> RNA

<213> oligonucleotide

<400> 182
cacuuuagcu cacgccaccg cacguugaac gcccaucccg 40

<210> 183

<211> 40

<212> RNA

<213> oligonucleotide

<400> 183

caaugcagca ucagcucaug gcccuccac aagcgcgaa

40

<210> 184

<211> 40

<212> RNA

<213> oligonucleotide

<400> 184

caugucuaca acaaucucgc ccguugaguc ucgucgaa

40

<210> 185

<211> 40

<212> RNA

<213> oligonucleotide

<400> 185

cgaucuuuuc gucaaccgca cguugaacuc ggucggcac

40

<210> 186

<211> 39

<212> RNA

<213> oligonucleotide

<400> 186

cacccguccg uccaaaucg cuucguugga cccaucuu

39

<210> 187

<211> 41

<212> RNA

<213> oligonucleotide

<400> 187

gaggacgaug cggacuagcc ucaucagcuc augugccccc c 41

<210> 188

<211> 49

<212> RNA

<213> oligonucleotide

<400> 188
gggggaauc uaauacgacu cacuauaggg agagaggaag agggauagg 49

<210> 189

<211> 40

<212> RNA

<213> oligonucleotide

<400> 189
gcugccgggc cuggacccca cccacauaug ggccacacac 40

<210> 190

<211> 40

<212> RNA

<213> oligonucleotide

<400> 190
aaugacaauu gacucggaaa cccucauguu ccaacaccgg 40

<210> 191

<211> 40

<212> RNA

<213> oligonucleotide

<400> 191
ccuacucucc acaccugguu uuaugcucua cacaccucac 40

<210> 192

<211> 40

<212> RNA

<213> oligonucleotide

<400> 192
cugccccgac cacaaaggac ggaacccuac ccacaguggg 40

<210> 193

<211> 40

<212> RNA

<213> oligonucleotide

<400> 193
cauaaaagca auuugccacc ggcguacggc accccaauau 40

<210> 194

<211> 40

<212> RNA

<213> oligonucleotide

<400> 194
caccuaugcc aucaggccuc aaucuccggc agcgacucua 40

<210> 195

<211> 39

<212> RNA

<213> oligonucleotide

<400> 195
aucaaccaca ggaagagugc agccauagca cacagacca 39

<210> 196

<211> 40

<212> RNA

<213> oligonucleotide

<400> 196
gcgacauacc ccacccacac uggcacaacg cgcaaugccg 40

<210> 197
<211> 38
<212> RNA
<213> oligonucleotide

<400> 197
cuucaaaggu ccuguaacca gccacccac ugacagga 38

<210> 198
<211> 32
<212> RNA
<213> oligonucleotide

<400> 198
cuaccagca aggucaacc uaccacacu gg 32

<210> 199
<211> 40
<212> RNA
<213> oligonucleotide

<400> 199
aucuuaaaga ucaccggcgu ucggcaacac ccgacccaaa 40

<210> 200
<211> 40
<212> RNA
<213> oligonucleotide

<400> 200
gcacuaaacu ucgauuaccc cccacccaca cuggcugcac 40

<210> 201
<211> 40
<212> RNA
<213> oligonucleotide

40

<213> oligonucleotide

39

<213> oligonucleotide

40

<213> oligonucleotide

41

<213> oligonucleotide

40

<210> 206

<211> 40

<212> RNA

<213> oligonucleotide

<400> 206
caaacucaca gacaccaacu gcaggagcac ccaccacgac

40

<210> 207

<211> 40

<212> RNA

<213> oligonucleotide

<400> 207
cgaacgaacu guggaccua cccacacugg gccaaagcgau

40

<210> 208

<211> 40

<212> RNA

<213> oligonucleotide

<400> 208
cgcccuggaa cgagauuccu guaaaccccc aucuaguaga

40

<210> 209

<211> 40

<212> RNA

<213> oligonucleotide

<400> 209
caaggugacc gcgaaccua cccgccgcac gguaacagcg

40

<210> 210

<211> 40

<212> RNA

<213> oligonucleotide

<400> 210

cauccagacu acuggcccaa cccgccgcuc caaccccgug

40

<210> 211

<211> 40

<212> RNA

<213> oligonucleotide

<400> 211

cucucuccgu aaccaacaag ucccaaugaa caaccaccau

40

<210> 212

<211> 40

<212> RNA

<213> oligonucleotide

<400> 212

cacugaacga auggcaaccg ccaaaccua cccacacugg

40

<210> 213

<211> 40

<212> RNA

<213> oligonucleotide

<400> 213

caagcguaua ccuacccac acugagcuac auugcgcuca

40

<210> 214

<211> 40

<212> RNA

<213> oligonucleotide

<400> 214

gccgagagug agugaccaca accccgccca cacuggaaua

40

<210> 215

<211> 40

<212> RNA

<213> oligonucleotide

<400> 215
uuuccuaugg cgauaacuuc agccacgccg gcgccccgug 40

<210> 216

<211> 40

<212> RNA

<213> oligonucleotide

<400> 216
cgucacuccg ucccagccga cgaaguccgu aaauccucca 40

<210> 217

<211> 40

<212> RNA

<213> oligonucleotide

<400> 217
ccaccgaag caaaucaagc ccgacggcgc ucggaccaac 40

<210> 218

<211> 39

<212> RNA

<213> oligonucleotide

<400> 218
cgaacugaag cuagcguaac ccuaccaca cugcacgug 39

<210> 219

<211> 40

<212> RNA

<213> oligonucleotide

<400> 219
accucgaccc uucaccugac ucuccagaa guucuguuuc 40

<213> oligonucleotide

<223> n=c, u, a or g

39

<213> oligonucleotide

40

<213> oligonucleotide

40

<213> oligonucleotide

40

<210> 224

<211> 40

<212> RNA

<213> oligonucleotide

<400> 224

uaugaaaauca cagaagcccg cguucgacac cuccacuguu

40

<210> 225

<211> 48

<212> RNA

<213> oligonucleotide

<400> 225

caaacucaca gacuccaacu gcaggagcac ccaccacac ugaggacag

48

<210> 226

<211> 40

<212> RNA

<213> oligonucleotide

<400> 226

aucccccgccg uaagccgucc ugauggacac cacacgccgc

40

<210> 227

<211> 18

<212> RNA

<213> oligonucleotide

<220>

<221> misc_feauure

<222> (10)..(13)

<223> r=a or g and w=a or u

<400> 227

acaaagcugr agwacuua

18

1096028860